

# The Boston Energy Reporting How-To Guide

[Draft]

A step-by-step guide to completing an annual energy and water report through Portfolio Manager

March 21, 2014

Answers to Frequently Asked Questions are available on page 10.

For questions or additional guidance on Boston's reporting requirements, email [EnergyReporting@Boston.gov](mailto:EnergyReporting@Boston.gov)

Portfolio Manager help, training webinars, and office hours are also available, at [portfoliomanager.energystar.gov/pm/help](http://portfoliomanager.energystar.gov/pm/help)

Additional resources and supplementary forms are available at [boston.gov/eeos/reporting](http://boston.gov/eeos/reporting)

## Reporting Checklist

- ☐ 1 Collect data on water use and all types of energy used by the building
- ☐ 2 Create an account in EPA's Portfolio Manager
- ☐ 3 Add your property to your account
- ☐ 4 Enter the size and details of the building's uses
- ☐ 5 Set up your energy and water meters in Portfolio Manager with the correct units
- ☐ 6 Enter your energy and water use data
- ☐ 7 Enter any contextual information and use of default or estimated values
- ☐ 8 Add your Boston Assessing Parcel ID
- ☐ 9 Generate and submit your energy and water report using the reporting template ([link](#)).
- ☐ 10 Retain records



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## Intro

In 2013, the City of Boston enacted the Building Energy Reporting and Disclosure Ordinance. The ordinance requires large buildings to report their annual energy and water performance and greenhouse gas emissions to the City, which will then make the information publicly available. Additionally, every five years, buildings that are not already efficient must complete an energy assessment or action.

Tracking building energy use helps to reduce energy consumption and greenhouse gas emissions. As a result, the energy reporting ordinance will help Boston's owners identify opportunities for energy efficiency, cut energy costs for tenants, and help keep Boston on track towards its climate action goals.

This user's guide provides step-by-step instructions on how building owners can comply with the annual energy reporting requirement. Reporting will make use of the Portfolio Manager tool, which allows building owners to track their energy and water use and electronically submit the required report.

## Who's Covered?

Starting in 2014, all non-residential buildings that are 50,000 ft<sup>2</sup> or larger, or any set of non-residential buildings on one tax lot that total 100,000 ft<sup>2</sup> or greater, per the gross floor area listed in Assessing Department records, must report their energy and water use. (A building is considered non-residential if over 50 percent of the building area, apart from parking, has non-residential purposes.)

To check the gross floor area of your building, use Assessing Online at [boston.gov/assessing/search](http://boston.gov/assessing/search).

## Who's Responsible?

The building owner or condominium association is responsible for reporting. Non-residential tenants must, if asked, supply necessary information to the owner or association.

## What Are the Deadlines?

Building owners must submit their report through EPA's Portfolio Manager reporting tool by May 15, 2014. Allow enough time to make sure that you have all of the necessary data.

The reports encompass the previous calendar year. In May 2014, accordingly, report the energy use and building information for the 2013 calendar year.

If you need an extension, you must apply with good reason by April 15, using the form available on the City's website, listed below.

## Support

For resources, guidance, and further information on Boston's energy reporting requirements, go to [boston.gov/eeos/reporting](http://boston.gov/eeos/reporting).

Training and help with Portfolio Manager, including a help desk for user questions, training webinars, and office hours, are provided by EPA at [portfoliomanager.energystar.gov/pm/help](http://portfoliomanager.energystar.gov/pm/help).

Questions about Boston's reporting requirements can be sent to [EnergyReporting@Boston.gov](mailto:EnergyReporting@Boston.gov).

## Get Started

Follow this guide's instructions to complete your energy and water report. As long as your data are complete before you submit your report, the order in which you enter data is flexible. (Building owners that are already using Portfolio Manager should review Steps 1-6, and then submit their report using Steps 7-10.)

## STEP 1

**Collect data on water use and all types of energy used by the building.** This can include electricity, natural gas, steam, chilled water, fuel oil, on-site solar, diesel, or any other energy source.

If you pay the energy and water bills for the whole building, you can access consumption data through your utility account or past bills. The data need to encompass January 1 to December 31 of 2013, so you may need 13 months of bills to fully cover the calendar year.

In addition, NSTAR, National Grid, and Veolia are making whole-building energy use data available to building owners. As a result, you can request gas, electric, and steam data for your building, without having to obtain usage information from individual tenants. Each utility is providing data in an Excel file format that can be directly uploaded into Portfolio Manager. Requests should be made by May 1.

→ NSTAR: Visit [nstar.com/business](http://nstar.com/business) and, under the “Energy Efficiency” section on the left, click on “Energy Reporting & Disclosure Portal.” (Or click on [this link](#).) Contact [NSTAREnergyDisclosure@nu.com](mailto:NSTAREnergyDisclosure@nu.com) for help.

→ National Grid: Follow the steps at [www2.nationalgridus.com/psbusiness/berdosupport.jsp](http://www2.nationalgridus.com/psbusiness/berdosupport.jsp) to request gas data. Contact [BERDOSupport@nationalgrid.com](mailto:BERDOSupport@nationalgrid.com) for help.

→ NSTAR and National Grid: Buildings with three or fewer tenants, or buildings where one tenant uses 50 percent or more of the energy, will need authorization from their tenants in order to use the data services. Non-residential tenants are required by the ordinance to provide this data upon request. The tenant authorization forms can be used for both NSTAR’s and National Grid’s services and are available on the City’s [website](#) and from the utilities.

## STEP 2

**Create an account in EPA’s Portfolio Manager, a free, online energy tracking tool.** Go to [portfoliomanager.energystar.gov/](http://portfoliomanager.energystar.gov/). Click “Sign Up” and fill in the required information.

- Note that compliance confirmations and other important emails will be sent to the email address that you register with.
- Help for Portfolio Manager, including a glossary, is always available via the ‘Help’ link in the upper right. You may need to enable pop-ups in your browser to access help files.
- Be sure to save your data regularly, especially before you click on a help or definition link. Portfolio Manager does not automatically save your data.

## STEP 3

**Add your property.** Once you’ve created an account, click on the “Add a Property” button. Enter the primary use and building characteristics, and click “Get Started.” You’ll then need to enter additional information about your building. Carefully read and select any checkboxes that apply – for example, having a data center or retail stores – and click “Continue.”

- Gross floor area in Portfolio Manager excludes parking. See the box below for what else is

included and excluded in gross floor area. This value in Portfolio Manager may be different than what's listed in the Boston Assessing records.

- If you must estimate your total square footage, you must denote this in the “Property Notes” section, in Step 7.
- For guidance on parking areas, buildings that share systems, estimation of square footage, or other property setup, see the “Special Issues & FAQ” on page 10.

**Gross floor area** is measured as the space between the exterior surfaces of the building's enclosing fixed walls, subject to the inclusions and exclusions below. For tenant spaces, interior demising walls should be measured to the centerline of the wall.

**INCLUDE** tenant areas, common areas, meeting areas, restrooms, elevator shafts, stairways, basement space, mechanical equipment areas, and storage rooms.

**EXCLUDE** all parking areas, exterior loading docks, exterior balconies, driveways, unroofed light wells, and plenums between floors. (You may be prompted for a tally of parking areas, but they don't count towards gross floor area).

## STEP 4

### Enter the gross floor area and details for each type of property use in the building.

An information box is provided for the primary use of the building. If you have additional types of property use in the building – for example, Office, Laboratory, Restaurant, etc. – find each one in the “Add Another Type of Use” dropdown box and click “Add.”

Once you have added all of the building's property uses, enter the gross floor area of each use and its details, such as the number of employees and operating hours. Once all of the information is complete, click on “Add Property.”

→ If you don't have accurate information, you must request it from the tenant. Use the “Property Information Request” form, available at [boston.gov/eeos/reporting/comply.asp](http://boston.gov/eeos/reporting/comply.asp).

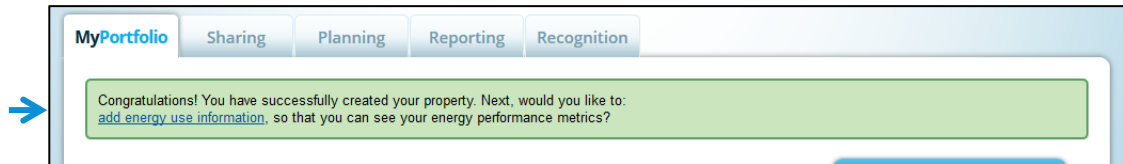
→ If you are unable to get this information from the tenant, you can select “Use a default” in Portfolio Manager. If there isn't a default value provided, you may estimate.

- If you estimate either the square footage or use detail for any property use, this must be noted in the “Property Notes” section. See Step 7.
- Even though parking doesn't count towards your gross floor area, enter any information about it if prompted by Portfolio Manager.

Property Use Detail	Value	Current As Of	Temporary Value
Gross Floor Area	50000 Sq. Ft.	01/01/2004	<input type="checkbox"/>
Weekly Operating Hours	Use a default	01/01/2004	<input type="checkbox"/>
Number of Computers	Use a default	01/01/2004	<input type="checkbox"/>
Number of Workers on Main Shift	Use a default	01/01/2004	<input type="checkbox"/>
Percent That Can Be Heated	Use a default	01/01/2004	<input type="checkbox"/>
Percent That Can Be Cooled	Use a default	01/01/2004	<input type="checkbox"/>

## STEP 5

**Set up your energy and water sources in Portfolio Manager with the correct units.** Click on “Add Energy Use Information” or on the “Meters” tab. Select each type of energy and water that your building uses. Note that a ‘meter’ in Portfolio Manager is simply a way to represent an energy source or water source. Accordingly, when you have whole-building data, you can create just one ‘meter’ to represent the building’s total natural gas use, for example.



Click “Get Started” to enter units and dates for each meter, and, once completed, click “Continue.”

- The “Date Meter Became Active” is the start date of the energy data you collected.
- Double-check your selection of units to make sure they align with your data. If you used whole-building data services, gas data from National Grid is in therms, and electricity data from NSTAR is in kWh.

## STEP 6

**Enter your monthly energy use data.** Note that entering costs is not required. Always check to make sure your units are correct, and click “Finish Meter Set-Up” or “Save Bills” when you’re done.

- If you’ve received whole-building data from NSTAR, National Grid, or Veolia, these utilities are providing data in a format that can be direct-uploaded into Portfolio Manager in one easy step. Click on the “Browse” button for the meter, find the appropriate Excel file, and click “Upload.”

Start Date	End Date	Usage kWh (thousand Watt-hours)	Cost (\$)	Estimation	Green Power
<a href="#">Click to add an entry</a>					
<div> <span>✖ Delete Selected Entries</span> <span>✚ Add Another Entry</span> </div> <div>  You can upload an excel spreadsheet with your basic bill information using our <a href="#">spreadsheet template</a>.           <div> <input type="button" value="Browse..."/> No file selected.           <input type="button" value="Upload"/> </div> </div>					
<input type="button" value="Back"/>		<input type="button" value="Finish Meter Set Up"/> <a href="#">Cancel</a>			

- If you use a third-party energy tracking tool, it may be able to upload data directly into Portfolio Manager; check with your software provider.
- If you’re entering data manually, click to add entries, one for each billing period. Remember that the data must encompass the 2013 calendar year, without gaps. You can also enter any green power that you purchased, by checking the “Green Power” box and entering sourcing details.

Once you’ve saved your bills, you will be asked which meters should be included in the building’s total consumption. Check off all the meters, and select the options indicating that these meters account for the total energy and water consumption of the property. Click “Apply Selections.”

## STEP 7

**Enter any contextual information about your building's energy performance.** Click on the “Details” tab and scroll down to “Property Notes.” You should enter here any relevant contextual information about your building that you want to be included in the City’s disclosures. Note that no building-level energy data or contextual information will be disclosed in the first year; hence any contextual information in 2014 will be simply to inform City staff during analysis.

You must also record here if:

- You used any default energy values
- You estimated a property use detail
- You estimated floor area at any point
- If you chose to use self-metered energy data instead of utility-provided data, and what the difference is
- Reporting was completed by a tenant who leases the whole building.

Together, the contextual information, and any of the required denotations listed above, must fit into the 1000 character limit.

Click “Save Notes” when you’re done.

The top of this same page provides information on your building's energy performance.

- You can see the building's *weather normalized source energy use intensity*, which is the energy consumption per square foot adjusted for weather. This estimates what energy use intensity would have been in a year with normal weather conditions.
- Some buildings will receive an Energy Star rating, which is a percentile score for energy performance as compared to similar buildings in the U.S., after normalizing for operating hours, size, climate, etc. However, this comparative dataset is not available for all building types.

## STEP 8

**Add your Boston Assessing Parcel ID.** This identifier helps ensure that your energy and water report is attributed to the right building.

Stay on the “Details” tab, and scroll down to the Unique Identifiers box. Click on “Edit.”

Under “Standard IDs,” select “Boston Energy Reporting ID.” Enter your ten-digit Assessing Database Parcel ID and click “Save.”

- Parcel IDs can be found in any notification letters that you may have received, at Assessing Online ([boston.gov/assessing/search/](http://boston.gov/assessing/search/)), or on your property tax bill.
- For buildings that span more than one parcel, enter all parcel numbers, separated by a space. If you have multiple buildings on one parcel, each can be reported using that same Parcel ID; this will not affect their reporting.
- Condo buildings should enter the master condominium ID (CMID).

## STEP 9

**Preview and submit your energy and water report to the City of Boston.** When you have entered all of your data, the Boston reporting template will allow you to generate, preview, and submit your report, all through Portfolio Manager.

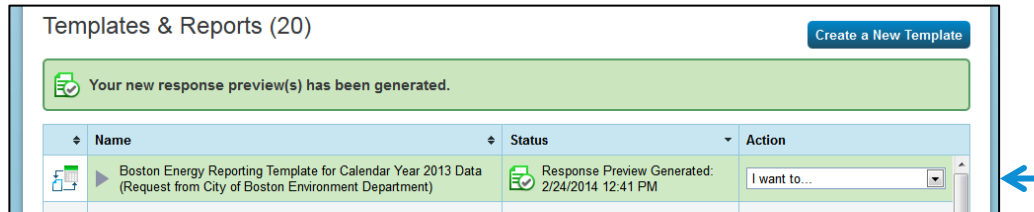
Once all data are complete, click on the following link (or copy and paste it into your browser). It is also posted on the City’s website, at [boston.gov/eeos/reporting](http://boston.gov/eeos/reporting), labeled “Reporting Template.”

<https://portfoliomanager.energystar.gov/pm/reports/dataRequest/accept/99ccfcfa-cdfb-49f3-9b4a-15520be30406>

This will import the reporting template into your Portfolio Manager account, and launches a page titled “Respond to Data Request: Boston Energy Reporting Template for Calendar Year 2013 Data.” This page allows you to generate your report.

- In the “About Your Response” box, select “myself,” unless you believe contact information for another entity should be attached to your report.
- Under “Your Response,” choose the properties to report. If you have several properties to report, click “Multiple Properties” and select the appropriate buildings.

Click "Generate Response Preview." This produces your report and returns you to the main Reporting page, where your report is highlighted in green. To preview it, use the dropdown box in the "Action" column and click on "Download Preview in Excel," enabling you to view the report as an Excel spreadsheet.



To submit your report to the City of Boston, stay on the Reporting page, where your report is still highlighted in green. In the "Action" column, use the same dropdown box to click on "Send Response."

On the page that appears, confirm and e-sign your report.

- Select any other contacts who should receive a confirmation email (they can be contacts that you are connected to in Portfolio Manager).
- You can also select which format your report should be emailed to you in – most building owners will choose Excel. This does not affect your submission to the City.

To e-sign your submission, check the box to certify that you are releasing data, and then enter your Portfolio Manager username and password. Click on "E-Sign Response" – the word "Signed" will appear.

Click on "Send Data," and, in the box that pops up, confirm by clicking on "Continue." Your report has now been submitted to the City. You'll receive a confirmation email from EPA, and you can also see a "Response Receipt" on the Reporting page.

## STEP 10

**Retain records.** Keep electronic or printed copies of the confirmation email from EPA, proof of requests made to tenants, and your original energy, water, and property use data. The regulations require building owners to retain such records for five years.

**This completes the 2014 reporting requirements. You're all set.**



## See the Results

In late 2014, you can go to the City’s energy reporting website and see the compliance status of covered buildings. Starting in 2015, you’ll be able to see the energy and water performance of all covered buildings.

## Follow-Up

- **Revisions.** If you obtain updated or corrected information that would change your energy use intensity by more than 2%, you need to revise your data in Portfolio Manager, re-submit your report, and notify the City at [energyreporting@boston.gov](mailto:energyreporting@boston.gov) of your updated report, within 30 days of obtaining the information. You can submit other updates at any time you wish.
- **Errors.** If any errors or missing data are found in your report, you will be notified and provided 30 days to make the necessary corrections, per the revision procedure above.
- **Tenant non-compliance.** You may report any non-residential tenants that have failed to comply with a data request, for follow-up and potential enforcement action by the City. Contact [energyreporting@boston.gov](mailto:energyreporting@boston.gov)

Additionally, buildings will need to complete an energy assessment or action every five years, with exemptions provided for efficient buildings and those making significant progress on efficiency. The approved energy reporting regulations provided further detail. Additional guidance will be released in the near future.

## Enforcement

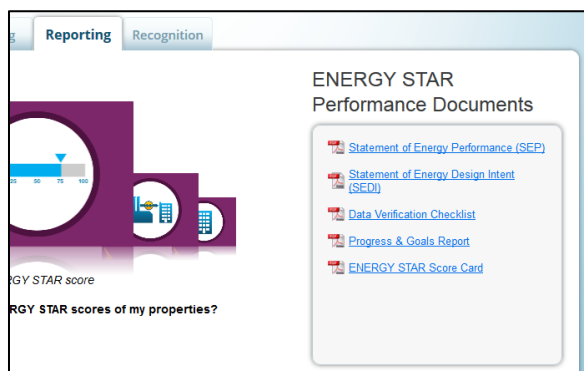
Failure to comply with the Building Energy Reporting and Disclosure Ordinance is subject to a Notice of Violation and subsequent fines.

## ENERGY STAR Certification

If your building scores an Energy Star rating of over 75, you may be eligible for Energy Star Certification, awarded by EPA. Buildings may be required to meet additional criteria and data quality standards. Find out more at <http://www.energystar.gov/buildings/about-us/how-can-we-help-you/recognition/earn-recognition-your-building-or-plant>.

## Sharing Information on Building Energy Performance

If you would like to communicate information on building energy performance with potential tenants or other interested parties, Portfolio Manager can generate a user-friendly Statement of Energy Performance. Click on the “Reporting” tab and, on the right side, select “Statement of Energy Performance” to generate a summary PDF.



## Making Improvements to Your Building

Tracking energy and water use is the first step in cutting energy use and saving on energy costs. The City of Boston, the Commonwealth of Massachusetts, and the region’s gas and electric utilities have partnered together to offer incentives and technical expertise for building energy improvements. Find out more at [www.renewboston.org](http://www.renewboston.org).

## Special Issues & FAQ

- **Which property uses should I select to represent my building?**

Portfolio Manager has approximately 80 different property use categories. You should accurately represent all uses that are found within your building. A list of definitions is available at:

[www.energystar.gov/buildings/sites/default/uploads/tools/PropertyUseDetailsandDefinition.pdf](http://www.energystar.gov/buildings/sites/default/uploads/tools/PropertyUseDetailsandDefinition.pdf)

- **How is parking reported? How do I report standalone parking garages?**

When parking is part of a building, it does not count towards gross floor area for Portfolio Manager purposes. For example, if you have a building with 100,000 square feet of office space and 20,000 square feet of parking, you should enter a gross floor area of 100,000 square feet into Portfolio Manager. You may be prompted to enter information on parking area, but it will not count towards your gross floor area.

If you use whole-building data, check off “My property’s energy consumption includes parking areas” when setting up your building. For further information, see EPA’s guidance here:

[portfoliomanager.supportportal.com/ics/support/KBAnswer.asp?questionID=15974](http://portfoliomanager.supportportal.com/ics/support/KBAnswer.asp?questionID=15974). (If you are not using whole-building data, and are submetering your parking areas, you may exclude parking area energy use.)

*Standalone parking garages:* If you are reporting a standalone parking garage, EPA recommends that you select the “Other” building type when creating the building. Do *not* check off “My building’s energy use includes parking areas.” Instead, just enter the total area of the garage (i.e., including parking) as the area of the building. This will prevent any error messages from coming up as you continue.

- **What if I don’t use the data available from my utility?**

If whole-building data is available from a utility, you must use either the utility data or use actual, whole-building data from your own source (such as data obtained from all tenants or from a building management system). Use of defaults or extrapolation is not permitted. If you choose to use whole-building data from your source, i.e. foregoing utility-provided data, the reason and an explanation of the difference must be noted in the “Property Notes” section.

- **How do I determine the gross floor area for a building or for a property use within the building?**

Many building owners will have information on gross floor area from leasing, sale, or other transactional documents. Other buildings will have plans that can provide dimensions for the building and/or individual property uses. For condo buildings, Assessing Online ([www.boston.gov/assessing/search/](http://www.boston.gov/assessing/search/)) has records for individual residential units. The Inspectional Services Division may also have records of square footage in its permit database ([www.boston.gov/isd/permitsearch/](http://www.boston.gov/isd/permitsearch/)). In conjunction, the gross floor area of common spaces and commercial condos can be estimated from building plans or measured; the City may also offer additional guidance, as needed, on measuring or estimating floor space.

The calculation of gross floor area is a one-time step, necessary only in the first year of reporting. Any estimation of floor area must be noted in “Property Notes.”

- **What if my building isn't fully occupied?**

Report the percentage of the building that is occupied when you first create the building within Portfolio Manager. For office buildings with 10% or higher vacancy, see EPA's guidance here: [portfoliomanager.supportportal.com/ics/support/KBAnswer.asp?questionID=34288](http://portfoliomanager.supportportal.com/ics/support/KBAnswer.asp?questionID=34288) . You'll need to create an office use representing the vacant space, with zero operating hours, computers, and workers.

- **What if my whole building is rented by a single tenant?**

If your building has a single tenant who has assumed management of the entire building, you and your tenant can agree to delegate reporting duties to the tenant. This delegation must be noted in the "Property Notes" section of Portfolio Manager.

- **Are there any energy uses that are not part of my building's energy use?**

Cell phone towers, radio masts, and any external billboards used for leased advertising space are not part of building energy use, and may be excluded if submetered. If you are not using whole-building data, and are submetering your parking areas, you may exclude parking area energy use since parking doesn't count towards your gross floor area.

- **Are there any water uses that are not part of my building's water use?**

Only fire pipe/emergency water usage may be excluded from your building's water consumption.

- **What if I have multiple buildings on one lot, or multiple buildings that share meters?**

Some parcels in Boston have multiple buildings on them; other owners may have buildings in close proximity that share meters or systems. The metering set up will help you determine how to report these buildings:

*All the energy sources and water are separately metered by building.* Each building needs to be reported as a separate building.

*One or more energy sources or water is not separately metered by building.* For each type of energy or water use where this is the case, you need to apportion by square footage, as long as:

- The uses of the buildings are generally similar
- The vacancy rates of the buildings are generally similar

If these conditions are met, then apportion any shared usage by the square footage of the buildings, and mark the data as an "Estimation" when you enter the values into Portfolio Manager.

*It isn't appropriate to apportion shared energy or water use.* If the buildings don't meet the criteria for apportionment, report them in Portfolio Manager as a multi-building property. Or, if they're on one lot and have similar uses, report them as a single building in Portfolio Manager.

City staff can assist in this determination – email [EnergyReporting@Boston.gov](mailto:EnergyReporting@Boston.gov). When multiple buildings are on one parcel, each one can be reported using that same Parcel ID; this will not affect reporting.

- **What if there is split ownership of the building?**

The primary owner listed in the records of the Boston Assessing Department is responsible for compliance with all aspects of the ordinance.

- **What is Source EUI? What is an Energy Star score? How are they calculated?**

Energy use intensity (EUI) is the building's energy use per square foot. Portfolio Manager typically shows a building's Source EUI, which is a complete assessment of the fuel required for operating the building, accounting for any losses during electricity transmission and distribution. When you see Weather Normalized Source EUI, this is an estimate of what the Source EUI would have been in a year with "normal" weather conditions. For example, in a very hot year, Portfolio Manager might estimate your Weather Normalized Source EUI to be lower than your actual Source EUI.

Energy Star score, or rating, is a percentile score, on a scale of 1-100, comparing your building's energy performance with that of similar buildings in the U.S. The score normalizes for climate, weather, building size, number of employees, and other operational factors. A score close to 100 indicates a very high-performing building.

- **What if my building doesn't receive an Energy Star score?**

Only some building types will receive an Energy Star score, due to limitations in the national comparative dataset. Thus, many buildings will submit their energy reports to the City without an Energy Star score.

- **How are data centers reported in Portfolio Manager?**

Portfolio Manager defines a data center as a space "specifically designed and equipped to meet the needs of high density computing equipment such as server racks." You can add a data center as a property use type. To receive an Energy Star score for a data center, energy use must be measured at the output of the uninterruptible power supply. Data center energy use is reported as separate value in your energy and water report, so the data center does not affect your building's energy use intensity.

- **Can I use data from an energy or building management system?**

Yes, if the system provides accurate whole-building data. Many such EEMS or BMS can upload energy and water data directly into Portfolio Manager. As discussed in Step 7, you must note in "Property Notes" if you do not use utility-provided data, and an explanation of any difference.

- **What if I generate electricity through on-site solar panels?**

You can enter this into Portfolio Manager when setting up your meters. Obtain data from your installer on the energy used, any energy exported out to the grid, and about any renewable energy certificates generated. If you report your renewable energy generation and use accurately, it will be reflected in your building's greenhouse gas emissions.

- **What if the building is under construction or newly built?**

A newly constructed building, if it meets the threshold for being covered by this ordinance, is required to report its energy use for the first full calendar year after receiving a Certificate of Occupancy.

- **What if I purchased the building in the past year?**

Buildings that have transferred ownership are not exempt from reporting requirements. The reporting regulations require the seller to transfer to the new owner any information that has been collected for completing the next energy and water report.